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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,123	09/10/2003	George R. England	GC774-2	6906
VICTORIA L. BOYD GENENCOR INTERNATIONAL, INC. 925 PAGE MILL ROAD			EXAMINER	
			ZEMAN, ROBERT A	
			ART UNIT	PAPER NUMBER
PALO ALTO,	CA 94304-1013	·	1645	
			DATE MAILED: 10/26/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)					
Office Action Summary		10/660,123	ENGLAND ET AL.					
	ince Action Guillinary	Examiner	Art Unit					
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Status								
1)⊠ Resp	onsive to communication(s) filed on 30 A	May 2006.						
,	This action is <b>FINAL</b> . 2b) This action is non-final.							
<u></u>	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
close	ed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.					
Disposition o	f Claims							
<u> </u>	n(s) <u>15-32 and 34-40</u> is/are pending in the	e application						
•	4a) Of the above claim(s) is/are withdrawn from consideration.							
	5) Claim(s) is/are allowed.							
·	)⊠ Claim(s) <u>15-32 and 34-40</u> is/are rejected.							
7)☐ Clair	n(s) is/are objected to.							
8)☐ Clair	n(s) are subject to restriction and/o	or election requirement.						
Application P	apers							
	specification is objected to by the Examine	or						
,—	drawing(s) filed on is/are: a)☐ acc		Examiner.					
	cant may not request that any objection to the							
• •	acement drawing sheet(s) including the correc							
	oath or declaration is objected to by the E							
Priority under	<sup>2</sup> 35 U.S.C. § 119							
12) Ackn	owledgment is made of a claim for foreign b) Some * c) None of:	n priority under 35 U.S.C. § 119(a)	)-(d) or (f).					
1.								
2.								
3.	Copies of the certified copies of the price	ority documents have been receive	ed in this National Stage					
	application from the International Burea	au (PCT Rule 17.2(a)).						
* See th	ne attached detailed Office action for a list	t of the certified copies not receive	ed.					
Attachment(s)								
	eferences Cited (PTO-892)	4) Interview Summary Paper No(s)/Mail D						
	raftsperson's Patent Drawing Review (PTO-948) Disclosure Statement(s) (PTO/SB/08)	5) Notice of Informal F	<del></del>					
•	)/Mail Date <u>6-2-2006</u> .	6) Other:						

#### **DETAILED ACTION**

The amendment and response filed on 5-30-2006 are acknowledged. Claim 15 has been amended. Claims 36-40 have been added. Claims 15-32 and 34-40 are pending and currently under examination.

# Information Disclosure Statement

The Information Disclosure Statement filed on 6-2-2006 has been considered. An initialed copy is attached hereto.

#### **Drawings**

Applicant is reminded color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

#### Claim Objections Withdrawn

The objection to claim 15 based on an obvious grammatical error wherein "a proteins" should read "a protein" is withdrawn in light of the amendment thereto.

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## Claim Rejections Maintained

## 35 USC § 112, Written Description

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-32 and 34-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement for the reasons set forth in the previous Office action in the rejection of claims 15-32 and 34-35. The claim(s) still contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It should be noted that Applicant did not address this rejection in his response.

Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, first paragraph "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

As outlined previously, the instant claims are drawn to methods of producing proteins (endogenous cellulase or heterologous proteins) utilizing a host cell wherein the said host cell can be a bacteria (Bacillus, Streptomyces, Thermomonospora or Cellumonas) or a filamentous fungus (Trichoderma reesei). Said host cell contains a vector wherein said vector can optionally comprise a sophorose or gentiobiose inducible promoter (cbh 1). Said methods contain one active step: "providing a host cell with an inducing feed composition" required for the accomplishment of the stated goal of the method (i.e. the production of a protein of interest). The

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"steps" recited with regard to the production of said inducing feed composition provided no descriptive limitations with regard to the composition of said inducing feed composition. The specification is silent with regard to the specific components present in the inducing feed composition end-product. Moreover, the specification is silent as what times and temperatures are required to obtain an inducing feed composition with certain components. The specification defines inducing feed as "a solution fed to a microorganism that causes or induces the production of the desired protein product" (see page 13 of the specification); this is insufficient to meet the written description requirement.

The aforementioned claims are directed to encompass any solution fed to a microorganism that causes or induces the production of the desired protein product. The specification provides insufficient written description to support the genus encompassed by the claim.

<u>Vas-Cath Inc. v. Mahurkar</u>, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, whatever is now claimed." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See <u>Vas-Cath</u> at page 1116.)

The skilled artisan cannot envision the detailed chemical composition of the encompassed compounds, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The composition itself is required. See <u>Fiers v. Revel</u>, 25 USPQ2d 1601, 1606 (CAFC 1993) and <u>Amgen Inc. V. Chugai Pharmaceutical Co. Ltd.</u>, 18 USPQ2d 1016. In <u>Fiddes v. Baird</u>, 30 USPQ2d 1481, 1483, claims directed to mammalian FGF's were found

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unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence.

Finally, <u>University of California v. Eli Lilly and Co.</u>, 43 USPQ2d 1398, 1404. 1405 held that: ...To fulfill the written description requirement, a patent specification must describe an invention and does so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (" [T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2dat1966.

An adequate written description of a DNA, such as the cDNA of the recombinant plasmids and microorganisms of the '525 patent, "requires a precise definition, such as by structure, formula, chemical name, or physical properties," not a mere wish or plan for obtaining the claimed chemical invention. *Fiers v. Revel*, 984 F.2d 1164, 1171, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993). Accordingly, "an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself." Id. at 1170, 25 USPQ2d at 1606.

The name cDNA is not itself a written description of that DNA; it conveys no distinguishing information concerning its identity. While the example provides a process for obtaining human insulin-encoding cDNA, there is no further information in the patent pertaining to that cDNA's relevant structural or physical characteristics; in other words, it thus does not describe human insulin cDNA. Describing a method of preparing a cDNA or even describing the protein that the cDNA encodes, as the example does, does not necessarily describe the cDNA itself. No sequence information indicating which nucleotides constitute human cDNA appears in the patent, as appears for rat cDNA in Example 5 of the patent. Accordingly, the specification does not provide a written description of the invention of claim 5.

Therefore, the full breadth of the claims fails to meet the written description provision of 35 USC 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. Applicant is reminded that <u>Vas-Cath</u> makes clear that the

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written description provision of 35 USC 112 is severable from its enablement provision. (See page 1115.)

### 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 15-28, 31-32 and 34-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitchinson et al. (U.S. Patent 6,268,328) for the reasons set forth in the previous Office action in the rejection of claims 15-28, 31-32 and 34-35.

### Applicant argues:

1. At the time the instant application was filed, it was standard practice in the art to use lactose in fermentations of microorganisms producing proteins of interest as exemplified by Selboth who

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stated "lactose is at present the only soluble carbon source which can be used economically for the production by Hypocrea jecorina of cellulases or heterologous proteins under the control of cellulase expression signals".

- 2. Mitchinson et al. is not appropriate art as it fails to teach each and every element of the claimed invention as they fail to provide any details on the growth medium.
- 3. Mitchinson et al. is not enabling.
- 4. The examiner's statement that the inducing feed composition is equivalent to the culture media disclosed in Mitchinson et al. since the specific components of said inducing feed composition are not recited is untenable.
- 5. Mitchinson et al. is silent on the addition of an inducing feed composition and also on the critical aspect on how they were able to induce protein production in the presence of glucose.
- 6. Example 2 of the instant specification shows that it is not the medium but the inducing feed composition that induces protein production when the cells are grown under otherwise identical conditions. Hence of skilled in the art would not have found the instant invention in the cited art.

Applicant's arguments have been fully considered and deemed non-persuasive.

The instant claims are drawn to methods of producing proteins (endogenous cellulase) utilizing a host cell wherein the said host cell can be a bacteria (Bacillus, Streptomyces, Thermomonospora or Cellumonas) or a filamentous fungus (Trichoderma reesei). Said host cell contains a vector wherein said vector can optionally comprise a sophorose or gentiobiose inducible promoter (cbh 1). Said methods contain one active step: "providing a host cell with an inducing feed composition" required for the accomplishment of the stated goal of the method

(i.e. the production of a protein of interest). The "steps" recited with regard to the production of said inducing feed composition provided no descriptive limitations with regard to the composition of said inducing feed composition. Since the specification defines an inducing feed as "a solution fed to a microorganism that causes or induces the production of the desired protein product" (see page 13 of the specification), any solution, including culture media, which results in the production of a desired protein meets the limitation of the claims. Moreover, the "steps" recited with regard to the production of said inducing feed composition are deemed to constitute a "product by process" description of the recited inducing feed composition. In Product-by-Process type claims, the process of producing the product is given no patentable weight since it does not impart novelty to a product when the product is taught by the prior art. See In re Thorpe, 227 USPQ 964 (CAFC 1985); In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983) and In re Brown, 173 USPQ 685 (CCPA 1972). Consequently, even if a particular process used to prepare a product is novel and unobvious over the prior art, the product per se, even when limited to the particular process, is unpatentable over the same product taught in by the prior art. See In re King, 107 F.2d 618, 620, 43 USPQ 400, 402 (CCPA 1939); In re Merz, 97 F.2d 599, 601, 38 USPQ 143-145 (CCPA 1938); In re Bergy, 563 F.2d 1031, 1035, 195 USPQ 344, 348 (CCPA 1977) vacated 438 US 902 (1978); and United States v. Ciba-Geigy Corp., 508 F. Supp. 1157, 1171, 211 USPQ 529, 543 (DNJ 1979). Finally, since the Patent Office does not have the facilities for examining and comparing Applicant's composition with the compositions of the prior art reference, the burden is upon Applicant to show a distinction between the material, structural and functional characteristics of the claimed composition and the composition of the prior art. See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

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Finally, with regard to Point 1, the cited reference was addressing what was "economical" not what was possible. Moreover, the amendment to claim 15 is not sufficient to distinguish the compositions of the instant invention from that of the cited reference

As outlined previously, Mitchinson et al. disclose methods of recombinantly producing cellulases utilizing host cells comprising expression vectors wherein said host cells can be either bacterial, yeast or fungal. Mitchinson et al. further disclose that the bacterial host cells can be *Bacillus subtillis* and the fungal host cells can be *Trichoderma reesei* (see column 12, lines 14-15). Moreover, Mitchinson et al. disclose that the expression vectors further comprise an inducible promoter and that said promoter can be cbh1 (see column 11, lines 38-39).

Additionally, Mitchinson et al. disclose that the expressed protein can be heterologous to the host cell. While Mitchinson et al. do not explicitly disclose that the promoters used are sophorose or gentiobiose inducible; the disclosed *cbh1* promoter possesses these characteristics.

Consequently, Mitchinson et al. anticipate all the limitations of the instant invention.

Claims 15-28, 31-32 and 34-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Fowler et al. (U.S. Patent 6,407,046) for the reasons set forth in the previous Office action in the rejection of claims 15-28 and 31-32.

### **Applicant argues:**

1. At the time the instant application was filed, it was standard practice in the art to use lactose in fermentations of microorganisms producing proteins of interest as exemplified by Selboth who stated "lactose is at present the only soluble carbon source which can be used economically for

the production by *Hypocrea jecorina* of cellulases or heterologous proteins under the control of cellulase expression signals".

- 2. Fowler et al. is not appropriate art as it fails to teach each and every element of the claimed invention.
- 3. Fowler et al. is not enabling.
- 4. The examiner's statement that the inducing feed composition is equivalent to the culture media disclosed in Fowler et al. since the specific components of said inducing feed composition are not recited is untenable.
- 5. Fowler et al. is silent on the addition of an inducing feed composition and also on the critical aspect on how they were able to induce protein production in the presence of glucose.
- 6. Example 2 of the instant specification shows that it is not the medium but the inducing feed composition that induces protein production when the cells are grown under otherwise identical conditions. Hence of skilled in the art would not have found the instant invention in the cited art. Applicant's arguments have been fully considered and deemed non-persuasive.

The instant claims are drawn to methods of producing proteins (endogenous cellulase or heterologous proteins) utilizing a host cell wherein the said host cell can be a bacteria (Bacillus, Streptomyces, Thermomonospora or Cellumonas) or a filamentous fungus (Trichoderma reesei). Said host cell contains a vector wherein said vector can optionally comprise a sophorose or gentiobiose inducible promoter (cbh 1). Said methods contain one active step: "providing a host cell with an inducing feed composition" required for the accomplishment of the stated goal of the method (i.e. the production of a protein of interest). The "steps" recited with regard to the

production of said inducing feed composition provided no descriptive limitations with regard to the composition of said inducing feed composition. Since the specification defines an inducing feed as "a solution fed to a microorganism that causes or induces the production of the desired protein product" (see page 13 of the specification), any solution, including culture media, which results in the production of a desired protein meets the limitation of the claims. Moreover, the "steps" recited with regard to the production of said inducing feed composition are deemed to constitute a "product by process" description of the recited inducing feed composition. In Product-by-Process type claims, the process of producing the product is given no patentable weight since it does not impart novelty to a product when the product is taught by the prior art. See In re Thorpe, 227 USPQ 964 (CAFC 1985); In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983) and In re Brown, 173 USPQ 685 (CCPA 1972). Consequently, even if a particular process used to prepare a product is novel and unobvious over the prior art, the product per se, even when limited to the particular process, is unpatentable over the same product taught in by the prior art. See In re King, 107 F.2d 618, 620, 43 USPQ 400, 402 (CCPA 1939); In re Merz, 97 F.2d 599, 601, 38 USPQ 143-145 (CCPA 1938); In re Bergy, 563 F.2d 1031, 1035, 195 USPQ 344, 348 (CCPA 1977) vacated 438 US 902 (1978); and United States v. Ciba-Geigy Corp., 508 F. Supp. 1157, 1171, 211 USPQ 529, 543 (DNJ 1979). Finally, since the Patent Office does not have the facilities for examining and comparing Applicant's composition with the compositions of the prior art reference, the burden is upon Applicant to show a distinction between the material, structural and functional characteristics of the claimed composition and the composition of the prior art. See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

Finally, with regard to Point 1, the cited reference was addressing what was "economical" not what was possible. Moreover, the amendment to claim 15 is not sufficient to distinguish the compositions of the instant invention from that of the cited reference

As outlined previously, Fowler et al. disclose methods of recombinantly producing cellulases utilizing host cells comprising expression vectors wherein said host cells can be either bacterial, yeast or fungal. Fowler et al. further disclose that the bacterial host cells can be *Bacillus subtillis* and the fungal host cells can be *Trichoderma reesei* (see column 6, lines 40-42). Moreover, Fowler et al. disclose that the expression vectors further comprise an inducible promoter and that said promoter can be cbh1 (see column 5, lines 54-60 and column 13, lines 51-53). Additionally, Fowler et al. disclose that the expressed protein can either be either homologous or heterologous to the host cell (see column 14, lines 24-25). While Fowler et al. do not explicitly disclose that the promoters used are sophorose or gentiobiose inducible; the disclosed *cbh1* promoter possesses these characteristics. Consequently, Fowler et al. anticipate all the limitations of the instant invention.

Claims 15-18, 23-29 and 34-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Lehmbeck (U.S. Patent 6,352,841) for the reasons set forth in the previous Office action in the rejection of claims 15-18, 23-29 and 34-35.

### **Applicant argues:**

1. 1. At the time the instant application was filed, it was standard practice in the art to use lactose in fermentations of microorganisms producing proteins of interest as exemplified by Selboth who stated "lactose is at present the only soluble carbon source which can be used

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economically for the production by *Hypocrea jecorina* of cellulases or heterologous proteins under the control of cellulase expression signals".

- 2. Lehmbeck et al. is not appropriate art as it fails to teach each and every element of the claimed invention.
- 3. Lehmbeck et al. is not enabling.
- 4. The examiner's statement that the inducing feed composition is equivalent to the culture media disclosed in Lehmbeck et al. since the specific components of said inducing feed composition are not recited is untenable.
- 5. Lehmbeck et al. is silent on the addition of an inducing feed composition and also on the critical aspect on how they were able to induce protein production in the presence of glucose.
- 6. Example 2 of the instant specification shows that it is not the medium but the inducing feed composition that induces protein production when the cells are grown under otherwise identical conditions. Hence of skilled in the art would not have found the instant invention in the cited art.

Applicant's arguments have been fully considered and deemed non-persuasive.

The instant claims are drawn to methods of producing proteins (endogenous cellulase) utilizing a host cell wherein the said host cell can be a filamentous fungus (*Trichoderma reesei or Penicillium*) and said host cell contains a vector optionally comprising an inducible promoter.

Said methods contain one active step: "providing a host cell with an inducing feed composition" required for the accomplishment of the stated goal of the method (i.e. the production of a protein of interest). The "steps" recited with regard to the production of said inducing feed composition provided no descriptive limitations with regard to the composition of said inducing feed composition. Since the specification defines an inducing feed as "a solution

fed to a microorganism that causes or induces the production of the desired protein product" (see page 13 of the specification), any solution, including culture media, which results in the production of a desired protein meets the limitation of the claims. Moreover, the "steps" recited with regard to the production of said inducing feed composition are deemed to constitute a "product by process" description of the recited inducing feed composition. In Product-by-Process type claims, the process of producing the product is given no patentable weight since it does not impart novelty to a product when the product is taught by the prior art. See In re Thorpe, 227 USPQ 964 (CAFC 1985); In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983) and In re Brown, 173 USPQ 685 (CCPA 1972). Consequently, even if a particular process used to prepare a product is novel and unobvious over the prior art, the product per se, even when limited to the particular process, is unpatentable over the same product taught in by the prior art. See In re King, 107 F.2d 618, 620, 43 USPQ 400, 402 (CCPA 1939); In re Merz, 97 F.2d 599, 601, 38 USPQ 143-145 (CCPA 1938); In re Bergy, 563 F.2d 1031, 1035, 195 USPQ 344, 348 (CCPA 1977) vacated 438 US 902 (1978); and United States v. Ciba-Geigy Corp., 508 F. Supp. 1157, 1171, 211 USPQ 529, 543 (DNJ 1979). Finally, since the Patent Office does not have the facilities for examining and comparing Applicant's composition with the compositions of the prior art reference, the burden is upon Applicant to show a distinction between the material, structural and functional characteristics of the claimed composition and the composition of the prior art. See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

Finally, with regard to Point 1, the cited reference was addressing what was "economical" not what was possible. Moreover, the amendment to claim 15 is not sufficient to distinguish the compositions of the instant invention from that of the cited reference

As outlined previously, Lehmbeck discloses methods of recombinantly producing cellulases utilizing fungal host cells. Lehmbeck further discloses that the fungal host cells can be *Trichoderma reesei* or a *Penicillium* species (see column 3, lines 23-32). Moreover, Lehmbeck discloses that the expression vectors further comprise an inducible promoter and that the expressed protein can be heterologous to the host cell (see column 3, lines 13-14). Consequently, Lehmbeck anticipates all the limitations of the instant invention.

#### Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Zeman whose telephone number is (571) 272-0866. The examiner can normally be reached on Monday- Thursday, 7am -5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Navarro can be reached on (571) 272-0861. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROBERT A. ZEMAN PRIMARY EXAMINER

October 2, 2006